

**Amendments to the Specification:**

Page 1, after the title, insert

Cross-Referenced Applications

This application is the U.S. National Stage of PCT/JP2003/008616, filed July 7, 2003, the complete disclosure of which is incorporated herein by reference, which was not published in the English language.

Page 22, amend the paragraph starting at line 10 as follows:

As the liquid-vapor separator 14 ~~15~~, it is permissible to use for example, a cheese pipe connected to an air vent valve.

Page 22, amend the paragraph starting at line 12 as follows:

Although by providing with the liquid-vapor separator 14, flow-out of non-dissolved carbon dioxide gas to the bath 17 is eliminated, it is preferable to provide a conduit pipe in the downstream of the liquid-vapor separator 14 with the bubble sensor ~~18~~ presuming a case where the function of the liquid-vapor separator 14 is lost by any trouble such as clogging of the gas exhaust port. Provision of the bubble sensor ~~18~~ enables the apparatus to be stopped by sensing a bubble mixed in the conduit pipe. The bubble sensor ~~18~~ is preferred to be of ultrasonic type and by using an ultrasonic wave transmitter and ultrasonic wave receiver, which are disposed across the conduit pipe, bubbles can be sensed based on the damping factor of ultrasonic wave transmitted through the conduit pipe.